

\*\*\*\*\* Welcome to STN International \*\*\*\*\*

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America  
NEWS 2 "Ask CAS" for self-help around the clock  
NEWS 3 Jun 03 New e-mail delivery for search results now available  
NEWS 4 Aug 08 PHARMAMarketLetter(PHARMAML) - new on STN  
NEWS 5 Aug 19 Aquatic Toxicity Information Retrieval (AQUIRE)  
 now available on STN  
NEWS 6 Aug 26 Sequence searching in REGISTRY enhanced  
NEWS 7 Sep 03 JAPIO has been reloaded and enhanced  
NEWS 8 Sep 16 Experimental properties added to the REGISTRY file  
NEWS 9 Sep 16 CA Section Thesaurus available in CAPLUS and CA  
NEWS 10 Oct 01 CASREACT Enriched with Reactions from 1907 to 1985  
NEWS 11 Oct 24 BEILSTEIN adds new search fields  
NEWS 12 Oct 24 Nutraceuticals International (NUTRACEUT) now available on STN  
NEWS 13 Nov 18 DKILIT has been renamed APOLLIT  
NEWS 14 Nov 25 More calculated properties added to REGISTRY  
NEWS 15 Dec 04 CSA files on STN  
NEWS 16 Dec 17 PCTFULL now covers WP/PCT Applications from 1978 to date  
NEWS 17 Dec 17 TOXCENTER enhanced with additional content  
NEWS 18 Dec 17 Adis Clinical Trials Insight now available on STN  
NEWS 19 Jan 29 Simultaneous left and right truncation added to COMPENDEX,  
 ENERGY, INSPEC  
NEWS 20 Feb 13 CANCERLIT is no longer being updated  
NEWS 21 Feb 24 METADEX enhancements  
NEWS 22 Feb 24 PCTGEN now available on STN  
NEWS 23 Feb 24 TEMA now available on STN  
NEWS 24 Feb 26 NTIS now allows simultaneous left and right truncation  
NEWS 25 Feb 26 PCTFULL now contains images  
NEWS 26 Mar 04 SDI PACKAGE for monthly delivery of multifile SDI results  
NEWS 27 Mar 20 EVENTLINE will be removed from STN  
NEWS 28 Mar 24 PATDPAFULL now available on STN  
NEWS 29 Mar 24 Additional information for trade-named substances without  
 structures available in REGISTRY  
NEWS 30 Apr 11 Display formats in DGENE enhanced  
NEWS 31 Apr 14 MEDLINE Reload  
NEWS 32 Apr 17 Polymer searching in REGISTRY enhanced  
NEWS 33 Jun 13 Indexing from 1947 to 1956 added to records in CA/CAPLUS  
NEWS 34 Apr 21 New current-awareness alert (SDI) frequency in  
 WPIDS/WPINDEX/WPIX  
NEWS 35 Apr 28 RDISCLOSURE now available on STN  
NEWS 36 May 05 Pharmacokinetic information and systematic chemical names  
 added to PHAR  
NEWS 37 May 15 MEDLINE file segment of TOXCENTER reloaded  
NEWS 38 May 15 Supporter information for ENCOMPPAT and ENCOMPLIT updated  
NEWS 39 May 16 CHEMREACT will be removed from STN  
NEWS 40 May 19 Simultaneous left and right truncation added to WSCA  
NEWS 41 May 19 RAPRA enhanced with new search field, simultaneous left and  
 right truncation  
NEWS 42 Jun 06 Simultaneous left and right truncation added to CBNB  
NEWS 43 Jun 06 PASCAL enhanced with additional data  
NEWS 44 Jun 20 2003 edition of the FSTA Thesaurus is now available  
NEWS 45 Jun 25 HSDB has been reloaded

NEWS EXPRESS April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT  
 MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),  
 AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003

NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS INTER General Internet Information  
NEWS LOGIN Welcome Banner and News Items

NEWS PHONE Direct Dial and Telecommunication Network Access to STN  
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

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\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 05:20:39 ON 30 JUN 2003

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 05:20:47 ON 30 JUN 2003

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STRUCTURE FILE UPDATES: 27 JUN 2003 HIGHEST RN 539020-41-2

DICTIONARY FILE UPDATES: 27 JUN 2003 HIGHEST RN 539020-41-2

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNnote 27, Searching Properties in the CAS Registry File, for complete details:

<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> e nicotinamide/cn

E1	1	NICOTINAMIDASE/ PYRAZINAMIDASE (SALMONELLA ENTERICA TYPHIMUR IUM STRAIN LT2; SGSC 1412; ATCC 700720 GENE PNCA)/CN
E2	1	NICOTINAMIDASE/PYRAZINAMIDASE (PSEUDOMONAS STRAIN ADP GENE A TZE)/CN
E3	1 -->	NICOTINAMIDE/CN
E4	1	NICOTINAMIDE (5-(BROMOACETYL)-4-METHYLIMIDAZOLE) DINUCLEOTIDE/CN
E5	1	NICOTINAMIDE 1,N6-ETHENOADENINE DINUCLEOTIDE/CN
E6	1	NICOTINAMIDE 1,N6-ETHENOADENINE DINUCLEOTIDE PHOSPHATE/CN
E7	1	NICOTINAMIDE 2'-DEOXYADENOSINE DINUCLEOTIDE/CN
E8	1	NICOTINAMIDE 2'-DEOXYADENOSINE DINUCLEOTIDE, REDUCED/CN
E9	1	NICOTINAMIDE 2-AMINO-4-(METHOXYMETHYL)-6-METHYL-/CN
E10	1	NICOTINAMIDE 2-AMINOPURINE RIBOSIDE DINUCLEOTIDE/CN
E11	1	NICOTINAMIDE 3,N4-ETHENOCYTOSINE DINUCLEOTIDE/CN
E12	1	NICOTINAMIDE 3-DEAZAPURINE DINUCLEOTIDE/CN

=&gt; s e3

L1 1 NICOTINAMIDE/CN

=&gt; d 11

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS

RN 98-92-0 REGISTRY

CN 3-Pyridinecarboxamide (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Nicotinamide (8CI)

OTHER NAMES:

CN  $\beta$ -Pyridinecarboxamide

CN 3-(Aminocarbonyl)pyridine

CN 3-Amidopyridine

CN 3-Carbamoylpyridine

CN 3-Pyridinecarboxylic acid amide

CN Aminicotin

CN Benicot

CN Delonin Amide

CN Dipearyl

CN m-(Aminocarbonyl)pyridine

CN NAM

CN Niacinamide

CN Niavit PP

CN Nicamina

CN Nicamindon

CN Nicasir

CN Nicobion

CN Nicofort

CN Nicosan 2

CN Nicosylamide

CN Nicotilamide

CN Nicotine acid amide

CN Nicotinic acid amide

CN Nicotinic amide

CN Nicotylamide

CN Nicovit

CN Nicovitina

CN Nictoamide

CN Niocinamide

CN Niozymin

CN Papulex

CN Pelmin

CN Pelmine

CN Pelonin amide

CN Vi-Nicotyl

CN Vitamin B

CN Vitamin B3

FS 3D CONCORD

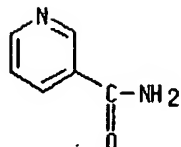
DR 123574-63-0, 37321-14-5, 78731-47-2

MF C6 H6 N2 O

CI COM

LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN\*,  
 BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS,  
 CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM,  
 CSNB, DDFU, DETHERM\*, DIOGENES, DRUGU, EMBASE, GMELIN\*, HODOC\*, HSDB\*,  
 IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, MSDS-OHS, NAPRALERT,  
 NIOSHTIC, PDLCOM\*, PHAR, PIRA, PROMT, RTECS\*, SPECINFO, TOXCENTER, USAN,  
 USPAT2, USPATFULL, VTB

(\*File contains numerically searchable property data)  
 Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*, WHO  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

7618 REFERENCES IN FILE CA (1957 TO DATE)  
 267 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 7620 REFERENCES IN FILE CAPLUS (1957 TO DATE)  
 9 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> e cyanopyridine/cn

E1	1	CYANOPTERINE/CN
E2	1	CYANOPYRAZINE/CN
E3	1 -->	CYANOPYRIDINE/CN
E4	1	CYANOPYRIDINIUM BROMIDE/CN
E5	1	CYANOQUINONAMINE/CN
E6	1	CYANORESIN CR-C/CN
E7	1	CYANORESIN CR-E/CN
E8	1	CYANORESIN CR-E TRIFLUOROMETHYLBENZOATE/CN
E9	1	CYANORESIN CR-M/CN
E10	1	CYANORESIN CR-S/CN
E11	1	CYANORESIN CR-S BENZOATE/CN
E12	1	CYANORESIN CR-S FLUOROBENZOATE/CN

=> s e3

L2 1 CYANOPYRIDINE/CN

=> d 12

L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS  
 RN 29386-66-1 REGISTRY  
 CN Pyridinecarbonitrile (6CI, 8CI, 9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN Cyanopyridine  
 MF C6 H4 N2  
 CI IDS  
 LC STN Files: BIOBUSINESS, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CIN, PROMT,  
 TOXCENTER, USPAT2, USPATFULL



D1-CN

65 REFERENCES IN FILE CA (1957 TO DATE)  
 6 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 65 REFERENCES IN FILE CAPLUS (1957 TO DATE)

## 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

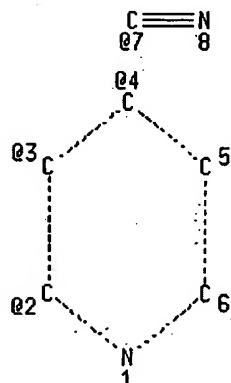
=&gt;

L3 STRUCTURE UPLOADED

=&gt; d 13

L3 HAS NO ANSWERS

L3 STR



VPA 7-2/3/4 S

NODE ATTRIBUTES:

NSPEC IS R AT 1

NSPEC IS R AT 2

NSPEC IS R AT 3

NSPEC IS R AT 4

NSPEC IS R AT 5

NSPEC IS R AT 6

NSPEC IS C AT 7

NSPEC IS C AT 8

DEFAULT MLEVEL IS ATOM

MLEVEL IS CLASS AT 7 8

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 8

STEREO ATTRIBUTES: NONE

=&gt; s 13

SAMPLE SEARCH INITIATED 05:24:52 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 5903 TO ITERATE

16.9% PROCESSED 1000 ITERATIONS

50 ANSWERS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 113456 TO 122664

PROJECTED ANSWERS: 32894 TO 37942

L4 50 SEA SSS SAM L3

=&gt; s 13 full

THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 147.75 U.S. DOLLARS  
 DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y  
 FULL SEARCH INITIATED 05:25:06 FILE 'REGISTRY'  
 FULL SCREEN SEARCH COMPLETED - 118278 TO ITERATE

100.0% PROCESSED. 118278 ITERATIONS  
 SEARCH TIME: 00.00.01

34801 ANSWERS

L5 34801 SEA SSS FUL L3

=>

L6 STRUCTURE UPLOADED

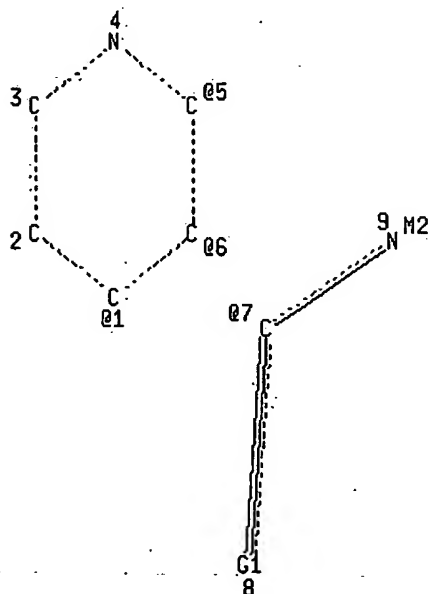
=> d 16

L6 HAS NO ANSWERS

L6 STR

0 10 S 11

Page 1-A



Page 1-B

VAR G1=10/11

VPA 7-1/5/6 S

NODE ATTRIBUTES:

HCOUNT	IS M2	AT	9
NSPEC	IS R	AT	1
NSPEC	IS R	AT	2
NSPEC	IS R	AT	3
NSPEC	IS R	AT	4
NSPEC	IS R	AT	5
NSPEC	IS R	AT	6
NSPEC	IS C	AT	7
NSPEC	IS C	AT	8
NSPEC	IS C	AT	9

DEFAULT MLEVEL IS ATOM

MLEVEL IS CLASS AT 7 9 10 11

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

=> s 16

SAMPLE SEARCH INITIATED 05:26:53 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 27967 TO ITERATE

3.6% PROCESSED 1000 ITERATIONS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.01

18 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*INCOMPLETE\*\*  
BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 549361 TO 569319  
PROJECTED ANSWERS: 8722 TO 11414

L7 18 SEA SSS SAM L6

=> file hcaplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	163.95	164.16

FILE 'HCAPLUS' ENTERED AT 05:27:14 ON 30 JUN 2003  
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FILE COVERS 1907 - 30 Jun 2003 VOL 139 ISS 1  
FILE LAST UPDATED: 29 Jun 2003 (20030629/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d his

(FILE 'HOME' ENTERED AT 05:20:39 ON 30 JUN 2003)

FILE 'REGISTRY' ENTERED AT 05:20:47 ON 30 JUN 2003

E NICOTINAMIDE/CN  
L1 1 S E3  
E CYANOPYRIDINE/CN  
L2 1 S E3  
L3 STRUCTURE UPLOADED  
L4 50 S L3  
L5 34801 S L3 FULL  
L6 STRUCTURE UPLOADED

L7 18 S L6

FILE 'HCAPLUS' ENTERED AT 05:27:14 ON 30 JUN 2003

=&gt; s 11/prep

7664 L1  
 3020723 PREP/RL  
 L8 250 L1/PREP  
 (L1 (L) PREP/RL)

=&gt; s 15/rct

10933 L5  
 2532391 RCT/RL  
 L9 5151 L5/RCT  
 (L5 (L) RCT/RL)

=&gt; s 19 and 18

L10 80 L9 AND L8

=&gt; file reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

4.51

168.67

FILE 'REGISTRY' ENTERED AT 05:28:15 ON 30 JUN 2003

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STRUCTURE FILE UPDATES: 27 JUN 2003 HIGHEST RN 539020-41-2

DICTIONARY FILE UPDATES: 27 JUN 2003 HIGHEST RN 539020-41-2

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when  
 conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP  
 PROPERTIES for more information. See STNote 27, Searching Properties  
 in the CAS Registry File, for complete details:

<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=&gt; e water/cn

E1 1 WATCON 1255/CN  
 E2 1 WATCON 130/CN  
 E3 1 --> WATER/CN  
 E4 1 WATER ((H2O)2)/CN  
 E5 1 WATER (D218O)/CN  
 E6 1 WATER (D2O1+)/CN  
 E7 1 WATER (DOT), HEAVY/CN  
 E8 1 WATER (DTO)/CN  
 E9 1 WATER (H17OH)/CN  
 E10 1 WATER (H214O)/CN  
 E11 1 WATER (H215O)/CN  
 E12 1 WATER (H217O)/CN



=&gt; s e3

L11 1 WATER/CN

=&gt; d l11

L11 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS

RN 7732-18-5 REGISTRY

CN Water (8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN 1593: PN: WO03025132 TABLE: 42 claimed sequence

CN Distilled water

CN DRIWATER

CN Hydrogen oxide (H2O)

CN R 718

FS 3D CONCORD

MF H2 O

CI COM

LC STN Files: ANABSTR, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CSCHM, CSNB, DETHERM\*, DIPPR\*, EMBASE, GMELIN\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, MSDS-OHS, NIOSHTIC, PDLCOM\*, RTECS\*, SPECINFO, TOXCENTER, ULIDAT, USAN, USPAT2, USPATFULL, VTB

(\*File contains numerically searchable property data)

Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

H2O

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

287130 REFERENCES IN FILE CA (1957 TO DATE)

955 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

287291 REFERENCES IN FILE CAPLUS (1957 TO DATE)

=&gt; file-hcaplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

6.30

174.97

FILE 'HCAPLUS' ENTERED AT 05:28:39 ON 30 JUN 2003

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FILE COVERS 1907 - 30 Jun 2003 VOL 139 ISS 1

FILE LAST UPDATED: 29 Jun 2003 (20030629/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d his

(FILE 'HOME' ENTERED AT 05:20:39 ON 30 JUN 2003)

FILE 'REGISTRY' ENTERED AT 05:20:47 ON 30 JUN 2003

E NICOTINAMIDE/CN  
 L1 1 S E3  
 E CYANOPYRIDINE/CN  
 L2 1 S E3  
 L3 STRUCTURE UPLOADED  
 L4 50 S L3  
 L5 34801 S L3 FULL  
 L6 STRUCTURE UPLOADED  
 L7 18 S L6

FILE 'HCAPLUS' ENTERED AT 05:27:14 ON 30 JUN 2003

L8 250 S L1/PREP  
 L9 5151 S L5/RCT  
 L10 80 S L9 AND L8

FILE 'REGISTRY' ENTERED AT 05:28:15 ON 30 JUN 2003

E WATER/CN  
 L11 1 S E3

FILE 'HCAPLUS' ENTERED AT 05:28:39 ON 30 JUN 2003

=> s l11/rct

287548 L11  
 2532391 RCT/RL  
 L12 21445 L11/RCT  
 (L11 (L) RCT/RL)

=> s l12 and l10

L13 0 L12 AND L10

=> s l10 and metal?

2062308 METAL?  
 L14 7 L10 AND METAL?

=> s l14 and catal?

1182962 CATAL?  
 L15 5 L14 AND CATAL?

=> d l15, ibib abs hitstr, 1-5

L15 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2003 ACS

Full Text	Citing References
--------------	----------------------

ACCESSION NUMBER: 2003:98167 HCAPLUS  
 DOCUMENT NUMBER: 138:287778  
 TITLE: Organometallic Chemistry in Aqueous Solution.  
 Hydration of Nitriles to Amides Catalyzed by a  
 Water-Soluble Molybdocene, (MeCp)<sub>2</sub>Mo(OH)(H<sub>2</sub>O)+  
 AUTHOR(S): Breno, Kerry L.; Pluth, Michael D.; Tyler, David R.

CORPORATE SOURCE: Department of Chemistry, University of Oregon, Eugene, OR, 97403, USA  
 SOURCE: Organometallics (2003), 22(6), 1203-1211  
 CODEN: ORGND7; ISSN: 0276-7333  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

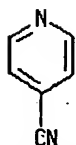
AB [Cp'2Mo( $\mu$ -OH)2MoCp'2]2+ (1) (Cp' =  $\eta^5$ -CH3C5H4) is a precatalyst for the hydration of nitriles in aq. soln. under mild conditions ( $-80^\circ$ ). Among the nitriles hydrated were acetonitrile, isobutyronitrile, benzonitrile, 3-hydroxypropionitrile, 3-bromopropionamide, 4-cyanopyridine, succinonitrile, Me cyanoacetate, 2-methoxyacetonitrile, and acrylonitrile. Except in the case of 2-methoxyacetonitrile, hydrolysis of the resulting amide products did not occur. Hydration of the C:C double bond did not occur in acrylonitrile, but hydrolysis of ester and ether linkages did occur in nitriles contg. those functional groups. The apparent rate consts. and turnover frequencies of the catalytic reactions were detd. using an iterative kinetics-fitting program. The rates and turnover frequencies are comparable to those reported for many homogeneous nitrile hydration catalysts described in the literature. In aq. soln., 1 is in equil. with [Cp'2Mo(OH)(H2O)]+ (2), and this monomer is proposed to be the active hydration catalyst. The hydration is proposed to occur by an intramol. attack of a hydroxide ligand on a coordinated nitrile. The hydration reaction is irreversibly inhibited by product and reversibly inhibited by substrate (nitrile).

IT 100-48-1, 4-Cyanopyridine

RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)  
 (hydration kinetics; kinetics of molybdocene catalyzed hydration of nitriles to amides in aq. soln.)

RN 100-48-1 HCAPLUS

CN 4-Pyridinecarbonitrile (9CI) (CA INDEX NAME)

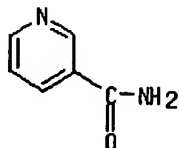


IT 98-92-0P, Nicotinamide

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (kinetics of molybdocene catalyzed hydration of nitriles to amides in aq. soln.)

RN 98-92-0 HCAPLUS

CN 3-Pyridinecarboxamide (9CI) (CA INDEX NAME)



REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2003 ACS

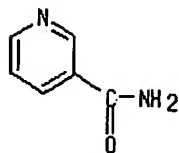
Full Text	Citing References
--------------	----------------------

ACCESSION NUMBER: 1996:431422 HCAPLUS

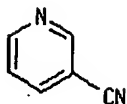
DOCUMENT NUMBER: 125:86507  
 TITLE: Process and manganese dioxide-based catalysts for the preparation of nicotinamide via the hydration of 3-cyanopyridine  
 INVENTOR(S): Eller, Karsten; Horn, Hans Christoph; Herion, Christof  
 PATENT ASSIGNEE(S): BASF A.-G., Germany  
 SOURCE: Ger. Offen., 4 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4440927	A1	19960523	DE 1994-4440927	19941117
WO 9616039	A1	19960530	WO 1995-EP4409	19951109
W: AL, AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, RO, RU, SD, SG, SI, SK, TJ, TM, TT, UA, UG, US, UZ, VN				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9538717	A1	19960617	AU 1995-38717	19951109
PRIORITY APPLN. INFO.:			DE 1994-4440927	19941117
			WO 1995-EP4409	19951109

OTHER SOURCE(S): CASREACT 125:86507  
 AB Nicotinamide is prepd. in high yield and selectivity by the hydration of 3-cyanopyridine in the presence of a mech. stabile catalyst comprising: (a) MnO<sub>2</sub> 30-95; (b) Al<sub>2</sub>O<sub>3</sub> 0.5-70, or SiO<sub>2</sub>, TiO<sub>2</sub>, or ZrO<sub>2</sub> 1-70; and (c) alkali metal oxides or alk. earth metal oxides 0.1-10%.  
 IT 98-92-0P, Nicotinamide  
 RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)  
 (process and manganese dioxide-based catalysts for the prepn. of nicotinamide via the hydration of 3-cyanopyridine)  
 RN 98-92-0 HCAPLUS  
 CN 3-Pyridinecarboxamide (9CI) (CA INDEX NAME)



IT 100-54-9, 3-Cyanopyridine  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (process and manganese dioxide-based catalysts for the prepn. of nicotinamide via the hydration of 3-cyanopyridine)  
 RN 100-54-9 HCAPLUS  
 CN 3-Pyridinecarbonitrile (9CI) (CA INDEX NAME)



Full Text	Citing References
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ACCESSION NUMBER: 1992:128194 HCAPLUS  
 DOCUMENT NUMBER: 116:128194  
 TITLE: Process for the preparation of copper catalysts with increased surface area  
 INVENTOR(S): Marayti, Ravindranathan; Sivaram, Swaminathan  
 PATENT ASSIGNEE(S): Indian Petrochemicals Corp. Ltd., India  
 SOURCE: Indian, 31 pp.  
 CODEN: INXXAP  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
IN 166044	A	19900303	IN 1986-BO147	19860515
IN 168607	A	19910504	IN 1989-BO63	19890313
PRIORITY APPLN. INFO.: IN 1986-BO147			19860515	

OTHER SOURCE(S): MARPAT 116:128194

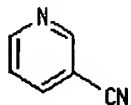
AB The title process useful for conversions of partially water-sol. org. nitriles to the corresponding amides, comprises redn. at 0-40° of ≥1 higher valent Cu salts by controlled addn. of an aq. soln. of a reducing agent, such as metal borohydride or an aldehyde for 2-5 h. The ratio of Cu salt-reducing agent is 0.5:1.8. After the reaction is complete, the catalyst is extd. and washed until the water evinces a pH 5.5-6. CuSO<sub>4</sub>·5H<sub>2</sub>O was treated with an alk. soln. of NaBH<sub>4</sub> and stirred for 3 h to give the activated catalyst. H<sub>2</sub>C:CHCN was treated with the Cu catalyst at a mol. ratio of 2:1, heated to 90° and maintained at this temp. for 2 h with vigorous shaking to give 94.6% H<sub>2</sub>C:CHCONH<sub>2</sub>, with a selectivity of 100%.

IT 100-54-9, Nicotinonitrile

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (hydration of, to amide, copper catalyst for)

RN 100-54-9 HCAPLUS

CN 3-Pyridinecarbonitrile (9CI) (CA INDEX NAME)

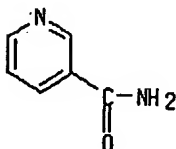


IT 98-92-0P, Nicotinamide

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. of, by hydration of nitrile, copper catalyst for)

RN 98-92-0 HCAPLUS

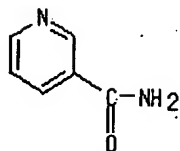
CN 3-Pyridinecarboxamide (9CI) (CA INDEX NAME)



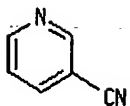
L15 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2003 ACS

Full Text	Citing References
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ACCESSION NUMBER: 1985:476789 HCAPLUS  
 DOCUMENT NUMBER: 103:76789  
 TITLE: Study of the activity and selectivity of an supported catalyst from oxides of metals of varying valence in the oxidative ammonolysis of 3-picoline  
 AUTHOR(S): Koshevnik, M. A.; German, E. N.; Guseinov, E. M.  
 CORPORATE SOURCE: USSR  
 SOURCE: Deposited Doc. (1984), VINITI 5036-84, 123-6 Avail.: VINITI  
 DOCUMENT TYPE: Report  
 LANGUAGE: Russian  
 AB The activity and selectivity of the com. catalyst KVTS (V and Ti oxides) and of newly prepd. catalyst K-3 were studied in oxidative ammonolysis of 3-picoline. The K-3 catalyst exhibits high activity and selectivity with 90-93% yield of nicotinic acid amide and nitrile at the total conversion of starting material. It allows 2-3 fold larger productivity of a reactor and decreases energy losses (related with the utilization of large amt. of steam with com. catalyst) as compared to the use of KVTS.  
 IT 98-92-0P 100-54-9P  
 RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
 (synthesis of, by oxidative ammonolysis of 3-picoline, activity and reactivity of catalysts for)  
 RN 98-92-0 HCAPLUS  
 CN 3-Pyridinecarboxamide (9CI) (CA INDEX NAME)



RN 100-54-9 HCAPLUS  
 CN 3-Pyridinecarbonitrile (9CI) (CA INDEX NAME)



L15 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2003 ACS

Full Text	Citing References
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ACCESSION NUMBER: 1974:505297 HCAPLUS  
 DOCUMENT NUMBER: 81:105297  
 TITLE: Pyridinecarboxylic acid amides  
 INVENTOR(S): Watabiki, Yukio; Sugimoto, Nobutaka; Sakai, Koji; Miyoshi, Masamitsu; Uehara, Yoshihiro; Hakozaiki, Akiyoshi  
 PATENT ASSIGNEE(S): Yuki Gosei Kogyo Co., Ltd.  
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 49062474 A2 19740617 JP 1972-103976 19721019  
 JP 51006672 B4 19760301

## PRIORITY APPLN. INFO.:

JP 1972-103976 19721019

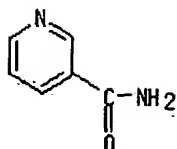
AB Pyridinecarboxylic acid amides were prepd. by hydrolysis of cyanopyridines in the presence of metal chromite catalysts comprising Cr and Cu (or Zn, Sn, Co, Mn, or Ni). Thus, refluxing a mixt. of 80 g 3-cyanopyridine (I) and 0.5 g Ni chromite catalyst in H<sub>2</sub>O 9 hr gave a product contg. 99.88 mole % (to I) nicotinamide. 4-Cyanopyridine was similarly converted to 98.68 mole % isonicotinamide by use of Cu chromite.

## IT 98-92-0P

RL: PREP (Preparation)  
 (from hydrolysis of 3-cyanopyridine)

RN 98-92-0 HCAPLUS

CN 3-Pyridinecarboxamide (9CI) (CA INDEX NAME)



## IT 100-48-1

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (hydrolysis of, isonicotinamide from)

RN 100-48-1 HCAPLUS

CN 4-Pyridinecarbonitrile (9CI) (CA INDEX NAME)

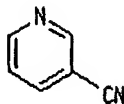


## IT 100-54-9

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (hydrolysis of, nicotinamide from)

RN 100-54-9 HCAPLUS

CN 3-Pyridinecarbonitrile (9CI) (CA INDEX NAME)



=&gt; file caold

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

29.44

204.41

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

-3.26

-3.26

FILE 'CAOLD' ENTERED AT 05:30:18 ON 30 JUN 2003

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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FILE COVERS 1907-1966

FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

This file supports REGISTRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

=> d his

(FILE 'HOME' ENTERED AT 05:20:39 ON 30 JUN 2003)

FILE 'REGISTRY' ENTERED AT 05:20:47 ON 30 JUN 2003

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      E NICOTINAMIDE/CN
L1      1 S E3
      E CYANOPYRIDINE/CN
L2      1 S E3
L3      STRUCTURE UPLOADED
L4      50 S L3
L5      34801 S L3 FULL
L6      STRUCTURE UPLOADED
L7      18 S L6

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FILE 'HCAPLUS' ENTERED AT 05:27:14 ON 30 JUN 2003

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L8      250 S L1/PREP
L9      5151 S L5/RCT
L10     80 S L9 AND L8

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FILE 'REGISTRY' ENTERED AT 05:28:15 ON 30 JUN 2003

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      E WATER/CN
L11     1 S E3

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FILE 'HCAPLUS' ENTERED AT 05:28:39 ON 30 JUN 2003

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L12     21445 S L11/RCT
L13     0 S L12 AND L10
L14     7 S L10 AND METAL?
L15     5 S L14 AND CATAL?

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FILE 'CAOLD' ENTERED AT 05:30:18 ON 30 JUN 2003

=> s 11 and 15

TOO MANY TERMS FOR FILE CROSSOVER IN L5

There are limits on the size of an answer set being crossed over from one file to another. Enter HELP CROSSOVER at an arrow prompt (=>) for specific information.

=> s 11

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L16     9 L1

```

=> s 15

TOO MANY TERMS FOR FILE CROSSOVER IN L5

There are limits on the size of an answer set being crossed over from



one file to another. Enter HELP CROSSOVER at an arrow prompt (=>) for specific information.

=> s 12

L17 1 L2

=> s 11 and 12

9 L1

1 L2

L18 0 L1 AND L2

=> log y

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

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205.21

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

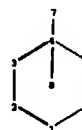
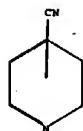
SESSION

CA SUBSCRIBER PRICE

0.00

-3.26

STN INTERNATIONAL LOGOFF AT 05:31:36 ON 30 JUN 2003



chain nodes :

7

ring nodes :

1 2 3 4 5 6

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6

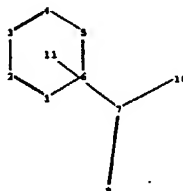
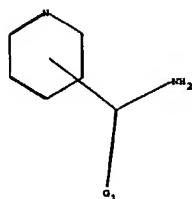
isolated ring systems :

containing 1 :

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS

C:\stnweb\Queries\388a.str



chain nodes :

7 9 10

ring nodes :

1 2 3 4 5 6

chain bonds :

7-9 7-10

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6

exact/norm bonds :

7-9 7-10

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6

isolated ring systems :

containing 1 :

G1:0,5

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 9:CLASS 10:CLASS 11:CLASS